# Álvaro Corrales Cano

Data Scientist and Economist with 4 years of experience in data analysis in clientfacing roles in tech and consulting firms

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O London, UK

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#### Technical skills

#### Methods

#### Main area of expertise: Econometrics

- o Causal inference Panel data, RCT, regression discontinuity
- o Discrete choice Classification problems
- o Time series ARIMA, GARCH
- Duration Analysis

#### **Machine Learning experience**

- Natural Language Processing (NLP) Sentiment Analysis, Topic modelling
- o Linear and logistic regression, SVM, KNN, Random Forests, Gradient Boosting
- Clustering methods Hierarchical, K-means

#### **Current interests**

- Deep Learning CNN, LSTM
- o Bayesian Networks (with a <u>blog in Towards Data Science</u>)

# **Technologies**

#### **Python**

- Data wrangling: numpy, pandas, scipy
- o ML: scikit-learn, statsmodels, keras, xgboost, lightgbm, optuna
- Visualisation & dashboarding: matplotlib, seaborn, plotly, streamlit
- o NLP: *gensim*, *nltk*, *spacy*

#### Cloud

- IBM Cloud and Cloud Pak for Data
- Docker (basic)

#### Other

Stata, Excel, R (basic)

# Professional experience

**IBM Data Scientist** 

London, UK November 2019 - Present

Cloud Pak Acceleration Team - Helping organisations use their data with Cloud technology, AI and an Agile methodologies. Show the value of IBM's Cloud Pak for Data through PoC and MVP. Relevant experience:

- o **Emergent Alliance Led two teams** producing open-source material in the fight against Covid-19. Code available on Github.
  - i. Co-authored a model of the economy to study how economic shocks propagate across economic sectors. We spined it of as a publicly available app.
  - ii. Identified mental health problems and perception of vaccines for NHS on Twitter using topic modelling and sentiment analysis.
- o **Publishing industry** Demonstrated how to leverage NLP and clustering techniques to identify authors of comments in online forums that use different user names across several platforms.
- o **Energy sector** Improved the data collection and organisation process of a company by using a harmonised catalogue with data protection rules, which can be partially accessed by external users, as required by national regulations.

#### **Give-back activities**

- o I have **spoken in public events** with organisations such as Code First Girls and PyData London, for which I have achieved recognition as a public <u>speaker</u> and <u>teacher</u>.
- I enjoy mentoring people that want to start a career as a Data Scientist, for which I have also gained recognition.
- I publish blogs about Data Science with my IBM <u>Medium</u> account.

#### Charles River Associates

London, UK

Consulting Associate August 2018 – July 2019

**Competition Practice** – Working in mergers and abuse of dominance cases.

- Successfully advised PayPal in its acquisition of iZettle, a company in the card payments industry, in a \$2.2bn operation.
- Worked on other confidential cases in the tech, air transport and natural gas sectors in front of the UK's and the EU's competition authorities.
- Responsibilities ranged from analysing large datasets in **Python** and **Stata** to drafting economic reports to be presented as evidence in my cases.

# **Neovantas Consulting**

Madrid, Spain

Business Analyst – Data Analyst

**January 2016 – August 2017** 

- Banking sector Led a lighthouse project for the design and implementation of debt recovery strategy for a collection agency using speech analytics and econometric techniques. Improvement of up to +29 p.p. in collection ratios. Started this project as an intern; after one year, I was leading a team of three people, including client-facing responsibilities.
- Banking sector Built for major European bank building an econometric model to evaluate the impact of internal management training.
- Mentor of new colleagues.

### Education

### Barcelona Graduate School of Economics

2017 - 2018

MSc in Economics and Finance - 8.8/10

Specialised in Econometrics and Machine Learning

### Universidad Carlos III de Madrid

2012 - 2016

BA in Economics - 8.2/10

# University of California, Berkeley

2014 - 2015

BA in Economics – Exchange Year (3) – 8.5/10

# Languages

- Spanish Native
- English Full proficiency
- French Intermediate

### Interests

I am passionate reader of ancient Greco-Roman literature, such as Homer's *Odyssey* or Herodotus' *Histories*. I also enjoy podcasting and evangelising in blogs and presentations.